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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,621	10/10/2001	Brian B. Lee	P-8779.01	9409

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EXAMINER	
EVANISKO, GEORGE ROBERT	
ART UNIT	PAPER NUMBER
3762	4

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/975,621	LEE ET AL.	
	Examiner	Art Unit	
	George R Evanisko	3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 October 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *23-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *23-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 23-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 23 (and 29), line 1, "the recording" lacks antecedent basis ("a recording"); "responsive to a trigger signal" is vague since it is unclear what element "responsive" is referring to and it is unclear if this is the same trigger signal used in line 1 or a different signal; generating a trigger detected signal" is vague (is this the same "trigger signal" used in line 1 or a different signal); "representing a finding of a predetermined pattern" makes the claim incomplete for omitting a step for "finding" a pattern and is inferentially including the step of finding a pattern; "recording trigger detected signal" is vague (is this the same signal used in line 5--"recording said trigger detected signal"); "an ECG data record memory" is vague (is this the same ECG signal used in line 2); "one sampled value" is vague ("one said sampled value"); "where" is vague since it is unclear if the limitation after "where" is being positively recited ("wherein" to positively recite the limitation and "whereby" to functionally recite the limitation); "where ECG...ECG data" is vague since the phrase is not a method step and it is unclear if this is part of the method; "out of range values of said ECG data" is vague since the trigger detect signal is not in the same class as ECG data. In addition, the preamble is inconsistent with the claim body

since there is no positive recitation of a step to recording of ECG signals. A suggested claim format for claim 23 is:

A method for recording trigger signals contemporaneously with a recording of ECG signal data into a memory as a series of sampled values, said method comprising:

monitoring an ECG input to find arrhythmia triggers in said ECG input and recording said ECG input as ECG signal data into the memory as the series of sampled values;

generating the trigger signal representing the finding of arrhythmia triggers in said ECG input;

recording said trigger signal in said recorded ECG data memory by replacing one previously said sampled value of the ECG data with said trigger signal; and

recording the ECG data within a sampling range less than a maximum amplitude sampling range and recording said trigger detect signal in the remainder of the maximum amplitude sampling range.

For the claims, it is suggested to use "said" or "the" before any element that has been previously recited.

In claim 24, the claim does not further limit method claim 23 since there is no active method step recited.

In claim 25, "prior to recording said ECG signal samples" is vague since no recording of ECG signals has been set forth in the claim.

In claim 26, "recorded ECG...data" is vague since no recording has been set forth; "noise data recorded" lacks antecedent basis and makes the claim incomplete since no noise data has been set forth to be recorded.

In claims 28 and 34, "said noise and trigger" needs "data" inserted after "trigger".

In claim 29, line 4, "an ECG signal" is vague (is this the same as the ECG signal in line 2); "an ECG input signal" is vague (is this the same as the ECG signal); In line 6, "an ECG signal" is vague. In addition, a similar claim format given above should be followed for claim 29.

In claim 30, "other sensor data" is vague since no sensor data has been set forth for "other" sensor data to be stored. In addition, it is suggested to include a step of sensing sensor data. In line 2, "where said ECG data is stored" is vague since the claim has not set forth any storage of ECG data.

In claim 31, "storing other sensor data" is vague; "said ECG" is vague since it is unclear which ECG element is being discussed; "memory" should be "said memory".

In claim 32, "recorded ECG...data" is vague since no ECG data has been recorded.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 23 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Wilson et al (5908392). Wilson's trigger signal is inherently "out of range" of said ECG data since the two are not the same type of data. In addition, Wilson states in column 13 that the data in the snapshot buffer overwrites previously recorded data.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 25-30 and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson et al.

Wilson discloses the claimed invention except for the compression of ECG signals prior to recording (claim 25), recording noise trigger signals in the ECG data record (claim 29) and parsing and displaying icons of the trigger and noise signals from the ECG signals (claims 26-28 and 32-34). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the recording and storage system as taught by Wilson, with the compression of ECG signals prior to recording (claim 25), recording noise trigger signals in the ECG data record (claim 29) and parsing and displaying icons of the trigger and noise signals from the ECG signals (claims 26-28 and 32-34) since it was known in the art that recording and storage systems use: a compression of ECG signals prior to recording (claim 25) to increase the amount of data that can be recorded; recording noise trigger signals in the ECG data record (claim 29) to determine where the ECG data may be invalid; and parsing and displaying icons of the trigger and noise signals from the ECG signals (claims 26-28 and 32-34) so the physician can determine if the system is operating correctly and/or to determine where arrhythmias may have started or where the ECG signal is invalid due to noise.

Conclusion

The claims are full of vague and indefinite language. Upon correction of the 112 second paragraph rejections, the claims may be finally rejected under 35 USC 112 or 35 USC 102 and

103 with new art or art of record. The claims would be allowable if the suggested claim format is followed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R Evanisko whose telephone number is 703 308-2612. The examiner can normally be reached on M-F 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on 703 308-5181. The fax phone numbers for the organization where this application or proceeding is assigned are 703 306-4520 for regular communications and 703 306-4520 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-1148.

George R Evanisko
Primary Examiner
Art Unit 3762
5/29/03

GRE
May 29, 2003